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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/593,385

09/18/2006

Tetsuo Korenaga

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EXAMINER

MOORE, KARLA A

ART UNIT

PAPER NUMBER

1792

NOTIFICATION DATE

DELIVERY MODE

11/09/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/593,385	Applicant(s) KORENAGA ET AL.	
	Examiner KARLA MOORE	Art Unit 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 July 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>0906,0908,1108</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
2. Claims 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Claim 2 recites the limitations "the grooved portion" and "a bottom of the guide member" at line 4 thereof. There is insufficient antecedent basis for this limitation in the claim. In order to expedite the examination process, the limitations have been interpreted as "the grooved portions" and "a bottom of each of the guide members".

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

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under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over in view of U.S. Patent No. 5,823,416 to Haji in view of Japanese Patent No. 2000-212777 to Soma et al. and U.S. Patent No. 4,588,185 to Shoda et al.

7. Iwai et al. disclose a plasma treatment apparatus capable of plasma treating a surface of a substrate in a treatment chamber (i.e. sealed space forming treatment area A) substantially as claimed and comprising: a base portion (12) which forms a bottom portion of the treatment chamber; a box shaped member (13) with its lower surface side open and a lower end portion abuts against a base surface (at and around 39) on top of the base portion so as to form the treatment chamber; an electrode section (34) which is fitted on the base portion through an insulator (37) and whose upper surface is exposed in the treatment chamber; a substrate mounting portion (top surface of 34) which constitutes an upper portion of the electrode section; plasma generating means (61, 12d and 38) for generating plasma for plasma treatment in the treatment chamber; a plurality of bar-shaped ceramic guide members (18 and 40-41; column 7, rows 45-46) which are disposed on the upper surface of the substrate mounting portion along a substrate transporting direction and are adapted to guide side and end surfaces of the substrate mounted on the substrate mounting portion.

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8. Haji discloses the plasma treatment apparatus substantially as claimed and as described above.

9. However, Haji fails to disclose an upper surface of the substrate mounting portion is covered with a ceramic.

10. Soma et al. teach that it is known in the art to provide a top surface of a substrate mounting portion of an electrode with a ceramic coating in order to prevent abnormal discharge due to application of high electric field.

11. It would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to have provided at top surface of the substrate mounting portion of the electrode section in Haji comprising a ceramic coating in order to prevent abnormal discharge due to application of high electric field as taught by Soma et al.

12. Haji and Soma et al. disclose the plasma treatment apparatus substantially as claimed and as described above. In addition to what is described above, Haji disclose guide member holding means, wherein the interval between the guide members in the transverse direction is adjustable. The guide holding means comprise screw holes (12c) on the base portion and screws (42) securing the guide members. That is the guide holding means are integral with the base portion.

13. However, Haji and Soma et al. fail to disclose a multi-structure guide holding means that is separate from the base.

14. Shoda et al. disclose a guide member holding means comprising a pair of fixed members (14) fixedly disposed on the base portion in a transverse direction being at a

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right angle to the substrate transporting direction; a plurality of supporting members (12) whose position in the substrate transporting direction is positioned by the fixed members and which are adapted to support both end portions of the guide members and fixing means (15 and 17) for the purpose of adjusting the position of guide members (13) according to form, size, etc. of a substrate such as a rectangle, disc, etc.

15. It would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to have provided guide holding means separate from a base and comprising a pair of fixed members, a plurality of supporting members and fixing means in Haji and Soma et al. in order to adjust the position of guide members according to form, size, etc. of a substrate such as a rectangle, disc, etc. as taught by Shoda et al.

16. With respect to the above rejection, Applicant appears to have invoked 112, 6th paragraph with respect to the following limitations: plasma generating means and fitting means, where the plasma generating means has been interpreted as an evacuation apparatus, plasma gas supplying apparatus and a high frequency power supply unit, collectively, as described in the specification or means equivalent thereto; and wherein the fitting means has been interpreted as bolts and threaded holes, collectively or means equivalent thereto, as also described in the specification.

Allowable Subject Matter

17. Claim 2 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

18. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record fails to teach or fairly suggest a plasma treatment apparatus for plasma treating a surface of a substrate in a treatment chamber as set forth above and further wherein a plurality of groove portions are formed on an upper surface of the substrate mounting portion along the substrate transporting direction by cutting the substrate mounting surface, and a projecting portion of a projection dimension smaller than a depthwise dimension of the plurality of groove portions and a notched portion formed by notching a bottom of each of the guide members formed in a shape of a rectangular bar with a notching dimension larger than a widthwise dimension of the substrate are formed continuously in a longitudinal direction on the bottom of each of rectangular, bar-shaped guide members, a side end portion of the substrate mounted on the substrate mounting surface being guided by the notched portion in a state in which the guide member is placed on the substrate mounting surface by advancing the projecting portion into the grooved portion. Nor was any other art located that provided the missing teachings along with the requisite motivation for combination.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KARLA MOORE whose telephone number is (571)272-1440. The examiner can normally be reached on Monday-Friday, 9:00 am-6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on 571.272.1435. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Karla Moore/
Primary Examiner, Art Unit 1792